

QT048

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating
48 kW 60 Hz



GENERAC 4.2L ENGINE

Naturally Aspirated
Gaseous Fueled

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Overspeed automatic shutdown
- Crank timer
- Exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UV/Ozone resistant hoses
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Radiator drain extension
- Battery charge alternator
- 2 Amp static battery charger
- Battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Flex fuel line
- Hour meter

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated voltage regulator
- Dynamic and static battery charger
- Sound attenuated acoustically designed enclosure
- Quiet test for low noise level exercise
- Acoustically designed engine cooling system
- High flow low noise factory engineered exhaust system
- State of the art digital control system with R100 digital control panel
- Watertight electrical connectors
- Rodent proof construction
- High efficiency, low distortion Generac designed alternator
- Vibration isolated from mounting base
- Matching Generac transfer switches engineered and tested to work as a system
- All components easily accessible for maintenance
- Electrostatically applied powder paint



APPLICATION & ENGINEERING DATA

QT048

GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TOTAL HARMONIC DISTORTION	<5%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR OUTPUT LEADS 3 PHASE	4 wire
BEARINGS	Sealed Ball
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	48 kW
EXCITATION SYSTEM	Direct

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Electronic
SENSING	Single Phase
REGULATION	± 1%
FEATURES	V/F Adjustable Adjustable Voltage and Gain LED Indicators

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All models are fully prototyped tested

CONTROL PANEL FEATURES

- SEVEN LED INDICATOR LIGHTS
 - System ready
 - Low fuel pressure
 - Low battery
 - Low oil pressure
 - High coolant temp/low coolant temp
 - Overspeed
 - Overcrank
- ADDITIONAL FUNCTIONS
 - Utility sensing
 - Delay on utility failure for engine start
 - Engine warm-up before transfer
 - Delay to retransfer to utility
 - Engine cooldown timer
 - Exerciser not set
 - Hour meter
- INTERNAL FUNCTIONS:
 - 3 position switch (auto, off and manual)
 - 2 wire start for any transfer switch
 - Communicates with the Generac RTS transfer switch
 - Built-in 7 day exerciser
 - Selectable engine speed at exercise
 - Governor controller is built into the master control board
 - Temperature range -40 °C to 70 °C

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

ENGINE SPECIFICATIONS

MAKE	Generac
MODEL	V6
CYLINDERS	6
DISPLACEMENT	4.2 Liter
BORE (inches)	3.81
STROKE (inches)	3.74
COMPRESSION RATIO	9.3:1
INTAKE AIR SYSTEM	Naturally Aspirated
VALVE SEATS (Int. & Exh.)	Precision ground and hardened
LIFTER TYPE	Roller, Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Isochronous
STEADY STATE REGULATION	± 0.25%

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow spin-on cartridge
CRANKCASE CAPACITY	6 Quarts

ENGINE COOLING SYSTEM

TYPE	Pressurized Closed
WATER PUMP FLOW	10.8 gal/min
FAN SPEED	1050
FAN DIAMETER	22 inches
FAN MODE	Puller

FUEL SYSTEM

FUEL TYPE	Natural gas, propane vapor
CARBURETOR	Down Draft
SECONDARY FUEL REGULATOR	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE	5" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER	2 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts

OPERATING DATA

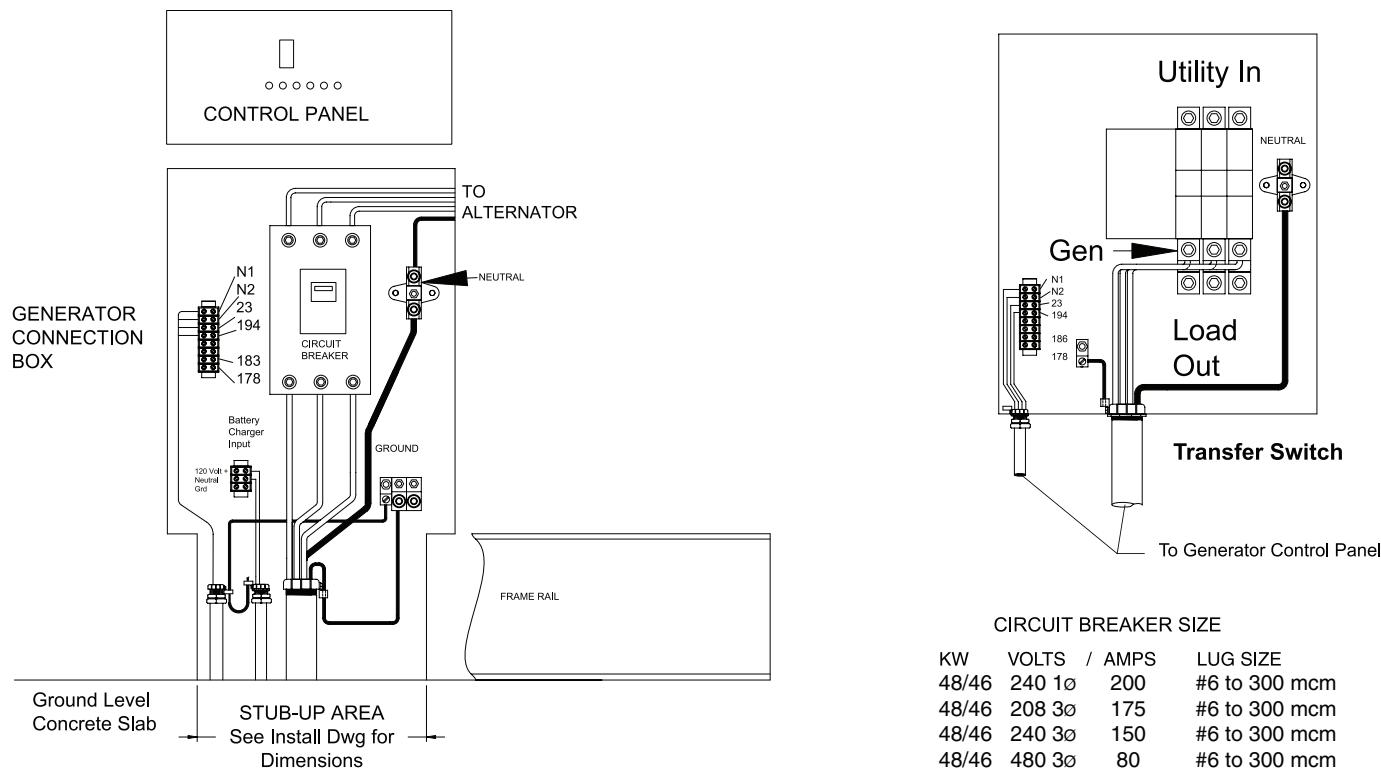
QT048									
KW RATING	48								
ENGINE SIZE	4.2 Liter V6								
GENERATOR OUTPUT VOLTAGE/KW - 60Hz	KW - LP	Amps	kW - NG	Amps	CB Size				
120/208V, 3-phase, 0.8 pf	48	166	46	160	175				
120/240V, 3-phase, 0.8 pf	48	144	46	138	150				
277/480V, 3-phase, 0.8 pf	48	72	46	69	80				
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35% Single phase or 208 3-phase 480V 3-phase	100 110								
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)	Natural Gas (ft ³ /hr.)			Propane (gal/hr.)	cu ft/hr				
Exercise cycle	88			0.94	34.4				
25% of rated load	205			2.23	81				
50% of rated load	370			4.03	147				
75% of rated load	516			5.62	204				
100% of rated load	661			7.20	261				
ENGINE COOLING									
Air flow (inlet air including alternator and combustion air)	ft ³ /min.	2,460							
System coolant capacity	US gal.	3.0							
Heat rejection to coolant	BTU/hr.	165,000							
Max. operating air temp. on radiator	°C (°F)	60 (150)							
Max. ambient temperature	°C (°F)	50 (140)							
COMBUSTION AIR REQUIREMENTS									
Flow at rated power 60 Hz	cfm	235							
SOUND EMISSIONS IN DBA									
Exercising at 7 meters	60								
Normal operation at 7 meters	65								
EXHAUST									
Exhaust flow at rated output 60 Hz	cfm	395							
Exhaust temp. at muffler outlet	°F	1100							
ENGINE PARAMETERS									
Rated synchronous RPM	60 Hz	1800							
HP at rated KW	60 Hz	75							
POWER ADJUSTMENT FOR AMBIENT CONDITIONS									
Temperature Deration	3% for every 10 °C above - °C								
	1.65% for every 10 °F above - °F								
Altitude Deration	1% for every 100 m above - m								
	3% for every 1000 ft. above - ft.								
	25								
	77								
	183								
	600								

RATING: All three phase units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. **STANDBY RATING:** Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1, BS5514, and DIN6271. Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition. Design and specifications are subject to change without notice.

KW rating is based on LPG Fuel and may derate with natural gas.

INTERCONNECTIONS

QT048



CIRCUIT BREAKER SIZE

KW	VOLTS / AMPS	LUG SIZE
48/46	240 1Ø 200	#6 to 300 mcm
48/46	208 3Ø 175	#6 to 300 mcm
48/46	240 3Ø 150	#6 to 300 mcm
48/46	480 3Ø 80	#6 to 300 mcm

Installation Drawing Ref. No. 0G5868

INSTALLATION LAYOUT

